

Application of: WALKER, Brock
Serial No.: 09/390,625
Filed: September 7, 1999
Reply to Office Action of March 13, 2006

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REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussions, is respectfully requested.

Claims 1-13, 15-21, and 23-38 are currently pending in the application. Claims 14 and 22 have been canceled, Claims 1-2, 6-9, 15-18, 21, 23, 25-26, 28 and 30-32 have been amended, and New Claims 34-38 have been added by the present amendment. The changes to the claims, as well as the newly added claims, are supported by the originally filed specification, including the drawings, and do not introduce any new matter.

The undersigned thanks the Examiner for allowing claims 5, 10-13, 27 and 32-33.

Claims 1, 28 and new claims 34 and 38 each claim the present invention more broadly, and while the focus remains on the use of a device having a central area with one level or value of compression and adjacent side areas which exhibit less compression than the central area, the location of the device in use has been included in claims 1, 34 and 38, and somewhat differently in claim 28. It is important to note that the cited art does not place those devices in this portion of a seat, but rather concerns devices primarily directed to helping to somehow support the lumbar area.

In the outstanding Office Action, Claims 1-4, 6-7, 15-17, 19-26 were rejected under 35 U.S.C. § 102(b) as anticipated by Perkins. (U.S. Patent No. 4,572,578). This rejection is traversed.

First the Examiner is incorrect in stating that Perkins discloses a "portable sacral support." Perkins' invention concerns a "Back Rest" and mentions only that "...lumbō-sacral support members of plastic foam material are provided at 25 which have the curvature of the lower portion 13 of the frame 11 and they are spaced apart to provide a continuation 19a of the groove 19." (See, col. 2, lines 6-10). This is not an anticipating disclosure of the present invention, nor does it render the present invention as being obvious.

First, claim 1 requires a central portion that provides a compressive area, the effects of which are focused on the sacrum, rather than being focused across a larger area. The area

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adjacent the central portion allows tissue and supporting portions of the anatomy to nestle into the adjacent areas that exhibit lesser compression.

Perkins, as in the above quoted phrase, does not deal with the sacrum but with the whole lumbo-sacral area, an area located above the sacrum and it extends across the whole back. In the opening paragraphs of Perkins' specification he describes the thoracic, cervical and lumbo-sacral areas, which are the upper and lower lumbar areas that extend across the whole back of an individual.

The present device has the objective of concentrating on the sacrum itself by having a central portion apply the greatest level of compressive force and to direct that directly against the sacrum.

In Perkins, the above quoted portion of his specification states that the areas 25 are spaced apart to provide a continuation 19a of the groove 19 there above. Groove 19-19a is in the center of his back rest. The continuation groove 19a is a recessed area that will not apply a force greater than areas 25. This is the reverse of this invention. Fig. 2 is a front view of the Perkins back support without the outer covering and establishes that the grooves 19 and 19a exist in the front of the back rest which faces the seated occupant and against which the seated occupant will have contact. Thus, even if it was possible to be affected by the bottom edge of the back rest, the sacrum, located at the bottom of the spine, would be located adjacent but below the groove continuation 19a on the front of the back rest. Consequently, groove 19a would shield the sacrum, if it were even within the limits of Perkins' device, which is neither conceded or believed to be the case. The groove 19a would provide little or no force against the sacrum as the lumbo-sacral area 25 would touch the muscles adjacent the spine and that would serve to withhold support from the spine which is received within the groove 19-19a. (See, col. 1, lines 63-65). That is because areas 25 would contact the user's back and keep pressure off the spine, or at the very least reduce any force on the spine relative to other portions of the back in contact with the back rest.

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Next, the items 15 and the recesses 12 are located adjacent the upper back and are not even in the sacral area.

Claim 1 has been amended to refer to a location for the sacral support at the juncture between a seat bottom and a seat back. Perkins is used only on the seat back since it is supporting the lumbar and thoracic regions primarily. Thus, areas 12 and 15 are not "focused" on the sacrum and could not be as they are too high up on the back rest.

Items 26 are not spacers but rather are forwardly extending, pillow-like members that support the kidneys (see, col. 2, lines 10-11). Further, there is no disclosure of having a central area with one compression value and areas adjacent that central portion with lesser compression values. In fact, given the structure of the Perkins back rest it is probably the reverse, softer in the center where the thinner groove 19a is and harder in adjacent areas where the back rest is thicker as in areas 25.

There is no disclosure that the compressive support in the central portion is variable, only that the kidney supports 26 are less dense than the cervical thoracic lumbo-sacral portions which can vary between small to medium to large size individuals (col. 2, lines 20-29). Nothing suggests that the central portion, grooves 19 and 19a, be variable as to the compressive support provided, if any, nor is there any discussion of how that could be accomplished.

Groove continuation 19a is not a flex gate, there is no discussion that the central portion, grooves 19 and 19a, be "raised" but rather they define a recessed area, the reverse of raised. Likewise, there is no teaching that the foam is self skinning, and not all foams are self skinning.

It is respectfully submitted that Perkins does not anticipate claims 1-4, 6, 7, 15-17 nor 19-26, and notice to that effect is respectfully requested.

Claims 28 and 30-31 were rejected under 35 U.S.C. § 102(b) as anticipated by Brooks et al. (U.S. Patent No. 4,475,543). This rejection is also traversed.

Brooks only discloses a semi-wrap around brace device in the form of a wide elastic belt with a pocket in which a foam element is inserted and then cured in place to better fit the individual. The location is the lumbar and lumbo-sacral region as shown in Fig. 4. The sacrum is

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shown in dotted lines below L5 and is largely unaffected by the bottom portion of the brace. Further, the brace extends all the way across the back of the wearer, as it is wrapped around the body, so that no particular area is being focused upon from a force standpoint. Indeed, a general overall support is produced by the wide central panel 20. In addition, there is no teaching of a central portion having a first level of compression with lesser compressive support in the areas adjacent that central portion. There is also no teaching of having release areas of lesser compression adjacent that central portion. Rather, as the specification states, "the foam element 16 extends across nearly the entire posterior, lumbosacral region in order to establish semi-wrap-around support." (See, col. 2, lines 31-33). The objective is "drawing tensile forces into the panels 20 and 30" (See, col. 3, lines 32-33), to support the back.

There is no teaching of the claimed central portion, of first and second compressive values, of release areas nor that one should distinguish between a central portion and areas adjacent or on each side of the central portion. Further, while there is an insert member, only one is formed and there is great discussion of how that is formed in place, but there is no discussion of forming a variety of inserts. Once the foam element 16 is cured and hardened the belt with that element is simply reused, that is put on and taken off.

It is respectfully submitted that Brooks et al. does not anticipate claims 28, 30 or 31, and notice to that effect is respectfully requested.

Claim 14 was rejected under 35 U.S.C. § 103(a) as unpatentable over Perkins in view of Goldstein (U.S. Patent No. 4,597,386). While this rejection is also traversed, claim 14 is cancelled and the issue is now moot.

Claim 29 was rejected under 35 U.S.C. § 103(a) as unpatentable over Brooks et al. This rejection is also traversed.

First, there is no place pointed to by the Examiner where Brooks et al. says that he is applying any force or pressure on the sacrum, let alone that there is a force on the sacrum that is greater than the force on adjacent tissue. However, how much force, more or less force is

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created across the back of the wearer by the central panel 20, depends directly upon the degree to which the belt is tightened when buckled in place and the degree to which the elastic side panels 22 and 24 are pulled. The element 16 is one that is supposed to be formed to the shape of the wearer as it cures. How much force depends on belt tightness, not the density of the insert. Loose belt, little or no force. As to the amount of force, there is no "psi" value teaching that can be found.

It is respectfully submitted that Brooks et al. does not render claim 29 obvious, and notice to that effect is respectfully requested.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome and in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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